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The listing of Claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Previously Presented) A method for type of service classification of a communication request for an application executing on a server, the method comprising the steps of:
 - providing an application plug-in associated with the application, the application plug-in being in an operating system kernel of the server;
 - wherein the application plug-in performs the following steps:
 - receiving the communication request;
 - obtaining application level information from the received communication request;
 - assigning a type of service classification to the received communication request based on the obtained application level information; and
 - providing the assigned type of service classification information for the communication request to a process executing on the server for processing communications from the server responsive to the communication request.
2. (Original) The method of Claim 1 wherein the communication request is a TCP/IP protocol communication and wherein the step of obtaining application level information from the received communication request comprises the step of obtaining level 5 or above information from the received communication request.
3. (Original) The method of Claim 2 wherein the step of providing the assigned type of service classification information for the communication request to a process executing on the server comprises the step of providing the assigned type of service classification information for the communication request to a TCP/IP kernel executing on the server.

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4. (Original) The method of Claim 3 wherein the step of providing the assigned type of service classification information for the communication request to a TCP/IP kernel further comprises the step of providing a source IP address, a destination IP address and a TCP/IP port number associated with the communication request to the TCP/IP kernel as an associated identification for the assigned type of service and wherein the method further comprises the step performed by the TCP/IP kernel of associating the assigned type of service with a plurality of communications from the server responsive to the received communication request based on the provided source IP address, destination IP address and TCP/IP port number.

5. (Original) The method of Claim 4 further comprising the step of associating the assigned type of service classification with a new thread instance initiated on the server based on the obtained application level information.

6. (Original) The method of Claim 5 wherein the step of associating the assigned type of service classification with a new thread instance initiated on the server based on the obtained application level information further comprises the step of associating the assigned type of service classification across a sockets API for associated connections based on the obtained application level information.

7. (Original) The method of Claim 2 wherein the step of assigning a type of service classification further comprises the step of assigning the type of service classification based on workload management information associated with the server.

8. (Original) The method of Claim 7 further comprising the steps of:
providing information associated with the received communication to a workload management process executing on the server; and
receiving the workload management information from the workload management process.

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9. (Original) The method of Claim 7 wherein the assigned type of service classification assigns at least one of a central processing unit (CPU) priority allocation, a memory allocation or an input/output (I/O) bandwidth allocation to the received communication request.

10. (Original) The method of Claim 2 further comprising the step of including type of service information in communications from the server responsive to the communication request based on the assigned type of service classification, the type of service information being usable by a network communicating the communications from the server for prioritization of traffic flows on the network.

11. (Original) The method of Claim 10 wherein the type of service information provides a different type of service for network prioritization of communications from the server than the assigned type of service classification provides from the server for processing of the communication request.

12. (Original) The method of Claim 11 wherein the method further comprises the step of providing a separate connection for communications from the server responsive to the communication request to support the different type of service for network prioritization of communications from the server than the assigned type of service classification provides from the server for processing of the communication request.

13. (Original) The method of Claim 2 wherein the communication request is a web-based request and the application is a web application.

14. (Original) The method of Claim 13 wherein the web-based request is a hypertext transport protocol (HTTP) request and wherein the application level information includes a universal resource locator (URL) of the HTTP request and wherein the assigning

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step further comprises the step of parsing the URL on the server to make a policy based determination of the type of service classification for the communication request.

15. (Original) The method of Claim 14 wherein the assigned type of service classification assigns at least one of a central processing unit (CPU) priority allocation, a memory allocation or an input/output (I/O) bandwidth allocation to the received communication request.

16. (Original) The method of Claim 14 wherein the step of providing the assigned type of service classification information for the communication request to a process executing on the server comprises the step of providing the assigned type of service classification information for the communication request to a TCP/IP kernel executing on the server and wherein the method further comprises the step performed by the TCP/IP kernel of associating the assigned type of service with a plurality of communications from the server responsive to the received communication request.

17. (Original) The method of Claim 16 further comprising the step of including type of service information in communications from the server responsive to the communication request based on the assigned type of service classification, the type of service information being usable by a network communicating the communications from the server for prioritization of traffic flows on the network.

18. (Original) The method of Claim 13 wherein the application level information includes an identification of a user initiating the communication request at a source device of the communication request.

19. (Original) The method of Claim 13 wherein the application level information is obtained from a cookie contained in the communication request.

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20. (Currently Amended) A system for type of service classification of a communication request for an application executing on a server, the system comprising:

a communication process executing on the server that processes communications between the server and a communication network associated with the communication request based on an associated type of service classification; and
an application plug-in process associated with the application ~~[[an]]~~ and being in an operating system kernel of the server that obtains application level information from the received communication request, assigns the type of service classification to the received communication request based on the application level information and provides the assigned type of service classification to the communication process.

21. (Original) The system of Claim 20 further comprising a workload management process executing on the server that receives information about the communication request from the application plug-in process and provides information related to server resources for use in allocating server resources to the communication process for use in processing communications between the server and a communication network associated with the communication request based on an associated type of service classification.

22. (Previously Presented) A system for type of service classification of a communication request for an application executing on a server, the system comprising:

a communication process executing on the server that processes communications from the server responsive to the communication request; and
an application plug-in associated with the application and being in an operating system kernel of the server;

wherein the application plug-in further comprises:
means for receiving the communication request;
means for obtaining application level information from the received communication request;
means for assigning a type of service classification to the received

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communication request based on the obtained application level information; and
means for providing the assigned type of service classification information for
the communication request to the communication process.

23. (Original) The system of Claim 22 wherein the communication request is a
TCP/IP protocol communication and wherein the means for obtaining application level
information from the received communication request comprises means for obtaining level 5
or above information from the received communication request.

24. (Original) The system of Claim 23 wherein the means for providing the
assigned type of service classification information for the communication request to the
communication process comprises means for providing the assigned type of service
classification information for the communication request to a TCP/IP kernel executing on the
server.

25. (Original) The system of Claim 23 wherein the means for assigning a type of
service classification further comprises means for assigning the type of service classification
based on workload management information associated with the server.

26. (Original) The system of Claim 25 further comprising:
means for providing information associated with the received communication
to a workload management process executing on the server; and
means for receiving the workload management information from the workload
management process.

27. (Original) The system of Claim 23 further comprising means for including
type of service information in communications from the server responsive to the
communication request based on the assigned type of service classification, the type of
service information being usable by a network communicating the communications from the

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server for prioritization of traffic flows on the network.

28. (Original) The system of Claim 23 wherein the communication request is a web-based request and the application is a web application.

29. (Original) The system of Claim 28 wherein the web-based request is a hypertext transport protocol (HTTP) request and wherein the application level information includes a universal resource locator (URL) of the HTTP request and wherein the means for assigning further comprises means for parsing the URL on the server to make a policy based determination of the type of service classification for the communication request.

30. (Original) The system of Claim 29 wherein the assigned type of service classification assigns at least one of a central processing unit (CPU) priority allocation, a memory allocation or an input/output (I/O) bandwidth allocation to the received communication request.

31. (Original) The system of Claim 29 wherein the means for providing the assigned type of service classification information for the communication request to the communication process comprises means for providing the assigned type of service classification information for the communication request to a TCP/IP kernel executing on the server and wherein the system further comprises the TCP/IP kernel, wherein the TCP/IP kernel further comprises means for associating the assigned type of service with a plurality of communications from the server responsive to the received communication request.

32. (Original) The system of Claim 31 further comprising means for including type of service information in communications from the server responsive to the communication request based on the assigned type of service classification, the type of service information being usable by a network communicating the communications from the server for prioritization of traffic flows on the network.

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33. (Previously Presented) A computer program product for type of service classification of a communication request for an application executing on a server, comprising:

a computer-readable storage medium having computer-readable program code embodied in said medium, said computer-readable program code comprising:

application plug-in computer-readable program code associated with the application for execution, the application plug-in computer readable program code being in an operating system kernel of the server;

wherein the application plug-in computer-readable program code further comprises:

computer-readable program code which receives the communication request;
computer-readable program code which obtains application level information from the received communication request;

computer-readable program code which assigns a type of service classification to the received communication request based on the obtained application level information;
and

computer-readable program code which provides the assigned type of service classification information for the communication request to a process executing on the server for processing communications from the server responsive to the communication request.

34. (Original) The computer program product of Claim 33 wherein the communication request is a TCP/IP protocol communication and wherein the computer-readable program code which obtains application level information from the received communication request comprises computer-readable program code which obtains level 5 or above information from the received communication request.

35. (Original) The computer program product of Claim 34 wherein the computer-readable program code which provides the assigned type of service classification information

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for the communication request to the communication process comprises computer-readable program code which provides the assigned type of service classification information for the communication request to a TCP/IP kernel executing on the server.

36. (Original) The computer program product of Claim 34 wherein the computer-readable program code which assigns a type of service classification further comprises computer-readable program code which assigns the type of service classification based on workload management information associated with the server.

37. (Original) The computer program product of Claim 36 further comprising:
computer-readable program code which provides information associated with the received communication to a workload management process executing on the server; and
computer-readable program code which receives the workload management information from the workload management process.

38. (Original) The computer program product of Claim 34 further comprising computer-readable program code which includes type of service information in communications from the server responsive to the communication request based on the assigned type of service classification, the type of service information being usable by a network communicating the communications from the server for prioritization of traffic flows on the network.

39. (Original) The computer program product of Claim 34 wherein the communication request is a web-based request and the application is a web application.

40. (Original) The computer program product of Claim 39 wherein the web-based request is a hypertext transport protocol (HTTP) request and wherein the application level information includes a universal resource locator (URL) of the HTTP request and wherein the computer-readable program code which assigns further comprises computer-readable

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program code which parses the URL on the server to make a policy based determination of the type of service classification for the communication request.

41. (Original) The computer program product of Claim 40 wherein the assigned type of service classification assigns at least one of a central processing unit (CPU) priority allocation, a memory allocation or an input/output (I/O) bandwidth allocation to the received communication request.

42. (Original) The computer program product of Claim 40 wherein the computer-readable program code which provides the assigned type of service classification information for the communication request to the communication process comprises computer-readable program code which provides the assigned type of service classification information for the communication request to a TCP/IP kernel executing on the server and wherein the computer program product further comprises TCP/IP kernel computer-readable program code which associates the assigned type of service with a plurality of communications from the server responsive to the received communication request.

43. (Original) The computer program product of Claim 42 further comprising computer-readable program code which includes type of service information in communications from the server responsive to the communication request based on the assigned type of service classification, the type of service information being usable by a network communicating the communications from the server for prioritization of traffic flows on the network.